



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/974,694	10/11/2001	Ronald Paul Rohrbach	H0001541	7962

7590 02/03/2004

Honeywell International Inc.
Law Department, Patent Services
101 Columbia Road
Morristown, NJ 07962

EXAMINER

BARRY, CHESTER T

ART UNIT	PAPER NUMBER
----------	--------------

1724

DATE MAILED: 02/03/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/974,694

Applicant(s)

ROHRBACH ET AL.

Examiner

Chester T. Barry

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 03 November 2003.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 13-26 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,7 and 10-12 is/are rejected.
- 7) ☒ Claim(s) 3-6,8 and 9 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 11 October 2001 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. §§ 119 and 120

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 13) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application) since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.
a) ☐ The translation of the foreign language provisional application has been received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121 since a specific reference was included in the first sentence of the specification or in an Application Data Sheet. 37 CFR 1.78.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 2/14,4/28/.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other:

Art Unit: 1724

Applicant's election with traverse of the Group I invention in the paper filed on 11/3/03 is acknowledged. The traversal is on the ground(s) that "searching the subject matter of group I, and the subject matter of groups II and III . . . does not place a serious burden on the Examiner." The examiner noted in the restriction requirement that the inventions set forth as Groups I - III were classified in class 210, subclass 348+, class 210, subclass 97+, and class 210, subclass 660+, respectively. Note that none of the three Groups are classified in the same class and subclass. Applicant did not allege that the examiner's classification of any of the three Groups was improper, or that at least two of the Groups were properly classified in the same class/subclass. Applicant did not explain why there was no "serious burden" in light of the uncontested finding that each of the three were classified in different subclasses. The examiner observes further that as of this writing, the numbers of US patents classified in each of Groups I, II, and III and not cross-referenced in either of the other two groups are:

Group I but neither Group II nor Group III: 25,813 patents

Group II but neither Group I nor Group III: 3,975 patents

Group III but neither Group I nor Group II: 4,657 patents

In the examiner's judgment, the searching of at least 3,975 documents is a "serious burden." If each of such 3,975 patents were reviewed for an average of just one minute apiece, the burden in time alone would be at least 66 hours. On average, the undersigned is afforded 16.2 hours to examine each application (more time if an RCE is filed). Accordingly, given the foregoing, a serious search burden is indeed found in this particular case.

The requirement is still deemed proper and is therefore made FINAL.

Claims 21 – 26, drawn to a method, are not directed to the elected invention of Group I, directed to a filter.

Claim 1 is directed to a fuel filter for removing sulfur-containing compounds from a liquid fuel, comprising:

- a hollow housing body defining a chamber therein;

- an inlet connected to the housing body and in fluid communication with the chamber thereof;

- an outlet connected to the housing body and in fluid communication with the chamber thereof;

- a filter media disposed in the housing chamber for filtering liquid fuel and for removing sulfur compounds therefrom, the filter media comprising:

 - a plurality of fibers; and

 - a sulfur-treating composition operatively associated with the fibers for reacting with sulfur-containing compounds.

The foregoing claim includes certain language emphasized above which does not limit the scope of the claim because it is merely a statement of intended use, not limiting of the structure of the fuel filter article itself. Accordingly, claim 1 is construed as follows:

Art Unit: 1724

Claim 1: A filter comprising:

a hollow housing body defining a chamber therein;

an inlet connected to the housing body and in fluid communication with the chamber thereof;

an outlet connected to the housing body and in fluid communication with the chamber thereof;

a filter media disposed in the housing chamber, the filter media comprising:

a plurality of fibers; and

a sulfur-treating composition operatively associated with the fibers.

None of dependent claim 2 – 9 refer back to recitations underlined above. Each of claims 2 – 9 recite structural elements.

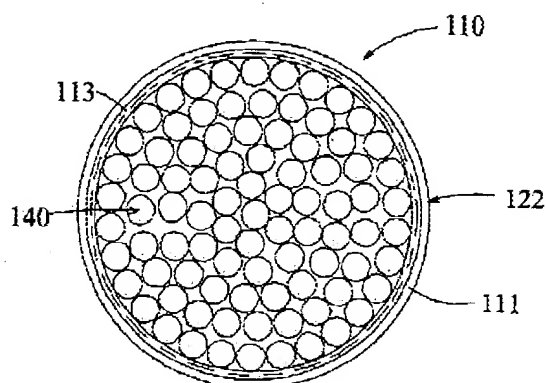
Similarly, claim 10 is construed as follows:

Claim 10: A filter comprising: a thin-walled hollow housing body defining a chamber therein; an inlet connected to the housing body and in fluid communication with the chamber thereof; an outlet connected to the housing body and in fluid communication with the chamber thereof; a filter media disposed in the housing chamber; the filter media comprising: a plurality of substrate particles; and a reagent operatively associated with a plurality of particles selected from said substrate particles, said reagent being capable of reacting with thiophenes.

Grieve describes a filter comprising: A hollow housing body defining a chamber therein; an inlet connected to the housing body and in fluid communication with the chamber thereof; an outlet connected to the housing body and in fluid communication with the chamber thereof; and a filter media disposed in the housing chamber, the filter media comprising: a plurality of fibers; and a sulfur-treating composition operatively associated with the fibers. See Grieve's description at paragraph [0040] and Fig. 5 (emphasis added):

[0040] The second chamber 122 can comprise a regenerable trap 140 (hereinafter "trap element 140") to filter and remove reformat impurities such as sulfur, hydrogen, sulfides, carbon monoxides, carbon sulfides including, but not limited to, methyl sulfides, ethyl sulfides, propyl sulfides, butyl sulfides, and thiols, mercaptans, disulfides thiophenes, and their derivatives, and the like. (See FIG. 5). The trap element 140 can comprise a monolith, foam, preform, mat, fibrous material, a plurality of beads (See FIG. 5), and the like, comprising a ceramic, metallic, cermet, or composite material, and the like, and combinations comprising at least one of the foregoing, that can support one or more sulfur adsorbing materials. The sulfur adsorption materials can adsorb sulfur from the reformats by one or more methods such as physisorption, selective physisorption, chemisorption, selective chemisorption, chemical reaction, and combinations comprising at least one of the foregoing adsorption methods, and the like. The sulfur trapping process can preferably undergo many sulfur adsorption/desorption cycles with minimal loss of sulfur adsorption capability. Consequently, the sulfur adsorption material will be relatively unaffected by fuel mixture constituents typically present such as carbon monoxide, nitrogen, organic nitrogen compounds derived from the fuel mixture, other fuel additives such as phosphorus and zinc, contaminant metals, and combinations comprising at least one of the foregoing constituents. Possible sulfur adsorber materials, also referred to as active redox materials, comprise transition metals such as nickel, iron, zinc, copper, molybdenum, manganese, vanadium, niobium, cobalt, as well as their alloys and transition metal oxides and other materials including carbonates, molecular sieves comprising zeolitic and non-zeolitic matter such as phosphates, molybdates, alumina containing equivalents, and combinations comprising at least one of the foregoing materials, and sodalites, scapolites, cancrinite structure type aluminosilicates, and combinations comprising at least one of the foregoing sulfur adsorber materials. The sulfur adsorber material preferably absorbs sulfur within the reformat stream at operating temperatures from about [400.degree. C. to about 800.degree. C., with operating temperatures from about 550.degree. C. to about 750.degree. C.] preferred. In addition, the trap element 140 can optionally include a washcoat material such as aluminum oxide, silicon oxide, zirconium oxide, titanium oxide, cerium oxide, combinations comprising at least one of the following ashcoat materials, and the like.

FIG. 5



Accordingly, claims 1, 2, 7, and 10 - 12 are rejected under Sec. 102(e) as anticipated by Grieve.

Claim 4 is objected to for the misspelling "comrprises." Correction *by applicant* is required.

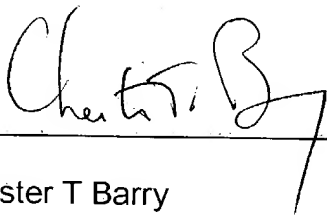
Claims 3 - 6, 8 - 9 are objected to as being dependent on a rejected base claim, but would be allowed if presented in independent form and amended to overcome any non-art bases for rejection or objection, e.g., claim 4.

Per claim 6, it is unclear if any one of the various sulfur-absorbing or -reacting materials described by Grieve is an electron acceptor "adapted to form" a coordination complex with any sulfur-containing compound. If applicant has the education, experience, knowledge or other reason for believing that Grieve so discloses a sulfur-absorbing or -

Art Unit: 1724

reacting material that is an electron acceptor adapted to form a coordination complex with any sulfur-containing compound, then applicant is urged to cancel claim 6.

USP 4523532 to Moriarty describes removal of solid sulfur using conventional fibrous filtration equipment.

A handwritten signature in cursive script, appearing to read "Chester T. Barry", is written over a horizontal line. The signature is fluid and stylized, with a long vertical stroke extending downwards from the end of the name.

Chester T Barry

Primary Examiner

571-272-1152